

Fearless Fighter: a personal story

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If there is an end in the vast universe far beyond, I want to find it out. If there is a stop in the forever running time, I would grasp that moment. It is my destiny to strive for truth all my life.

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PART 1

FEARLESS FIGHTER

THE PURSUIT OF INFINITY

IF THERE IS AN END IN THE VAST UNIVERSE FAR BEYOND, I WANT TO FIND IT OUT. IF THERE IS A STOP IN THE FOREVER RUNNING TIME, I WOULD GRASP THAT MOMENT. IT IS MY DESTINY TO STRIVE FOR TRUTH ALL MY LIFE.

INTRO

NIGHTMARE

Childhood is always a paradise to most people. No pain, no threats, doing things you like, playing with others without constraint. My childhood is no different despite a special afternoon.

I still remember that day. I was attending primary school then. That afternoon was really hot, I guess. My mother was bored at the terrible weather, "One day, the earth will explode because of the rising temperature!" she said. "And we all have to die". "Is there any way to prevent the earth from exploding?" I began to feel uneasy. "No, the earth will finally explode some day in the future."

"The earth will explode, and we all have to die". These words carved deeply on my immature and naïve soul. It was then when I began to reevaluate my life. And it was then when for the first time in my life, I felt the real horror and unconquerable threat.

UNCONQUERABLE PROBLEM?

DESPERATE

I try to burry my uneasiness deep in my heart and not to let it wake up. I try to play interesting things in order to eliminate my scare of death. But unfortunately, this memory was unforgettable, and with time went by, the feeling of the horror of death grew even stronger. Not a single time could I not help thinking about the horror of death after I turned off the light and lay in bed. Whenever this happened, I could not fall asleep for hours and my heart beat faster. I was making painful struggle in my brain. If I die, all things will be gone. I shouldn't have ever been born! But the fact is I was born, at a time when no solutions were given to solve the death problem. And to make things worse, even though I thought about the problem for hundreds of times, it was terrible and even horrible for me to find that this problem itself probably and even certainly had no solution at all.

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I make a clear list below of how I thoroughly thought about this matter, or solutions I thought in the past.

I first think that I must develop a medicine that can prolong my life. That is already an impossible work due to the current science and technology level. Meds may not be effective for a long time, what about changing our genes and thus changing our cells' property under a more solid basis? If our body cannot be renewed, what about a mechanical body? It is really quite unimaginable when all body parts are replaced by machines while only our brain remains alive. The methods above seems possible, but extremely difficult, I even put one step further, if I cannot achieve my dream during my life time, would it possible to freeze my body for several hundreds of years until someone else finally conquer the problem which puzzles humans ever since civilization came into being.

But even if one obtains immortal life, he will have another difficulty to face. The earth has its life limit; the sun has its life limit. Even if the sun would not inflate and swallow the earth, the missing of sun power would leave no plants alive, let alone animals fed on these plants. Can we transmit to another place which is suitable for humans to live? Seems possible, but the nearest star is 4.2 light years away, it takes us 150 thousand years to travel to that star by using the fastest spaceship today, and the nearest star is no younger than our sun! Even though we can accelerate our spaceship to a higher speed, but what about space dusts and aerolites alone the way? Where is the huge energy come from to boost the acceleration? I never think it is possible for mankind to evacuate from our mother earth.

Look at people today, it is really sorrowful to see our environment being devastated, to feel the temperature rising year after year. Just few days before the Copenhagen Meeting, leaders from around the world appeal each other to put cutting carbon emission to the same important place as economic growth. That is a well-recognized method. But seldom have any country put real efforts in reducing their carbon emission. Humans will finally trap themselves if they continue to harm the environment without taking any solid actions. Take recycling used batteries as an example, everyone learned from their textbooks that batteries should be recycled, but when I want to recycle it, who receives them? Nobody. No special trash cans, no recycle company. Another example is the plastic bottle. Anybody knows that glass or can drinking is environment friendly, but seldom has any producers take a risk to use them because of the high cost. Plastic bottle is cheaper, but what about the environment?

OK, turn to our main point. Even if we can escape to other planet one day, how about accidents? You may run into air clashes, or traffic accidents. You may be shot or killed in an unexpected violence. You may get a new disease which solutions have not been given. You may get an electricity shock or be put down by poisonous gases. If you still think that the possibility of accidents is rather low, but when compared to your infinite life, that possibility is greatly enlarged as time goes on. You can escape those unhappiness a thousand times, but should any of them happen once, your game would be over. Therefore, however long one lives in the world, the result is no different. Everybody has to die. It sometimes seems like nature's or god's joke.

And that is the unconquerable problem.

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IF IMMORTAL LIFE IS IMPOSSIBLE

WOULD IT STILL DESERVE ME TO SACRIFICE MY WHOLE LIFE INTO IT?

Yes. One of the greatness of mankind is that he embodies imagination that often exceeds objective boundaries. Even if a principle is right for thousands of years, it may turn out to be not true in the end. The cognition of human beings is developing through time, and the truth we get today is simply a small corner of the real truth. Compare life in the ancient time with life today, whoever in the ancient times thought the progress today is possible? There are numerous things that are still unknown. Whoever knows what truth burry beyond the surface? Those facts, which we are so familiar with, who knows if there is a deeper principle or more basic power below those acquainted facts? Just as no one can predict the future, the view to define a real truth is far from the beginning. What we perceived today are to be valued, but not absolute divine and unchangeable. People should have the courage to become the first to eat tomato, to challenge what we have already known, to struggle with life and fate. Life is not destined, however insignificant and powerless one is, if he has the heart and soul, he can make a difference. If he can unite all human who bear the same dream and mind, then we, the people can make a contribution to our knowledge. If all human beings continuously advances their pursuit wave upon wave, from generations to generations, I think, would surely turn to a definite change.

I often feel worried about people who waste their time playing all day long. What a pity! Is playing the whole meaning for their life? I admit different people have different thinking and they have the right to do things on their own will. However I think their endless playing is an absolute irresponsibility to their life. Life is so precious that everyone has no more chances to live again. So everybody should try their best to present where the meaning of their life lies. I understand many people take playing as the principle of their life as long as they feel the essence to live a maximum happy life before they die, otherwise their life would be in wane with little enjoyment. It is true that we should live a happy life. But they have a misunderstanding of what true happiness is. True happiness lies not in a single person, but in a group of people. That's why we are social beings and we cannot live separately from the family of society. One can only achieve his life's value and harvest real enjoyment in the enterprise for the people, not in the pursuit of his private wealth and spiritual comfort. We live because others live. We are happy because others are happy. That's where life and happiness originates.

But look at the current situation, many people could do things no more than play. Still more people don't know what their life's goal is. It is really sorrowful to see one of my roommates abandoned his study while playing computer games all his four years in college. While his parents painfully borrowed money to send him to school, he feels no shame at his doings and throws away his study without a single glance.

The high unemployment rate is not at all irrelevant to people with similar background. Taking a glance at the world situation, can anyone tell it's not the same? We have had enough political conflicts, arms competitions and terrorist attacks. Don't they present a very disrespectful altitude to human's life? The extreme pursuit of partisan benefits, national security and religious moral will finally make them isolate and lead to

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disastrous result, while in the end it is the people who make the most sacrifice. From Thailand to Sri Lanka, from Iran to Iraq, from Pakistan to Afghanistan, from Palestine to Israel, from Zimbabwean to Nigeria, from Congo to Somalia, it is the people who risk their life under the bullets and bombs, who starve with no food and clean water, who get infected with contagious disease while the government takes no solution!

I feel grieved at those who bury their youth under the meaningless pursuit of so-called happiness, feel even more grieved at people who aim only at their own benefits while taking no consideration of other people. Sometimes I think should the society attach enough importance to the invaluableness of life, our society would never have stayed in such an embarrassing status but achieved a much greater progress. If all mankind recognize the 'once and forever' preciousness of life, the human society would be strong and consociated enough to withstand any problems encountered. And any problem will be no problem.

I have always wanted to spread my thinking and advice to people above, especially to those who abandon their life on meaningless pursuit. The creation of this website is also within such purpose. One of my greatest hopes is to see more people doing the right thing in their lifetime, to see more people be engaged in the exploration of life science. But the harsh reality still lies there. Nature is always emotionless and objective. Remember that word in materialism? Matters determine our thought. The truth lies there; nothing you do can ever change the fact. Anyone can easily understand why I state it as an unconquerable problem from my early analysis. If it is the truth that I cannot change my fate, would I still contribute my life to it? **Again, yes.**

The following lists three aspects in elaborating this problem.

1. SIGNIFICANCE TO ME

I have many fancy dreams. Ever since I was a child, I had been curious to know the start of time and the end of universe. This basic problem of where we come from is never solved, although man had tried to give an answer for hundreds of thousands of years. Physics is just what the secret of our nature is all about. The courage to explore the universe is huge, the time it takes is infinite, and the knowledge we need to know never comes to an end. The life of our human is so insignificant, that every time a great scientist died, with him gone his cumulated knowledge and experience.

Some scientists pay a painstaking effort in storing their knowledge in books or passing all what they know to their students. And the time consumed in it is nevertheless comparatively significant. Had Weinberger not paid so much time in writing his book GRAVITATION AND COSMOLOGY, he would have already demonstrated his idea on quantum integration theory. Had Donald Knuth, the father of modern computer technology not paid his whole life in writing his famous book on computer science THE ART OF COMPUTER PROGRAMMING, he would have made a great more inventions and technological creations. But they had to, because they knew their life was limited, once they went away, nothing was left.

It is notable that the time consumed in passing knowledge from generations to generations is so huge, and the loss of experts who have significant contributions on their

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fields is so great, and the explosive development of knowledge far exceeds the speed of human beings to learn. Needless to say, the division of specialty will become so complicated that more and more work is in need of a group of people rather than a single person. But how about efficiency? Do you think a group people with different knowledge can compete with someone who has all the knowledge in dealing out with a solution in the shortest time? I often think that someday the amount of knowledge comes to such a size that people can hardly catch up what they need to make any progress or invention within their life time. The more complicated and difficult a problem is, the more knowledge it needs to solve it. It is entirely possible that those century problems will never be solved if human beings still consider their lifetime is the upper limit for them to study. The group working on those problems would never reach the knowledge level it needs to solve the problem, as they find that they are not able to manage all those knowledge within their lifetime.

Therefore, an improvement on human beings ourselves is needed if we want the trend of our development to be a J shape rather an S shape. And prolonging our life seems the only way.

Actually I have a variety of interest and want to have a taste on everything. I have always wanted to emulate a real world or life by developing computer science and robot technology. I have always wanted to fly to different parts of the world, even travel to distant planets and stars, to another planet similar to our mother earth. I have always wanted to read famous books and play all interesting games. What a paradise!

But I have no time. Each of the things I enjoy or want to do requires my whole life's effort. If I want to do them all, the only way is to have an immortal life. I always think that life is just a tragedy, as I have described before, it is impossible to live forever, whether on a science level or a philosophy level. Even if a person obtains immortal life, and the outside world exerts no harm to him, there is still possibility that he will someday destroy him by his own hand! Similar results can be found in sports competitions, some athletes are usually defeated not by their enemies, but by themselves. Though they have absolute advantage in their physical power, they cannot control their mental power at all times.

2. SIGNIFICANCE TO MY RELATIVES

There are many purposes people live in this world. Some live for themselves. Some live for their family. Some live for all mankind. Among the three, the last one is most affecting.

Much more simply, the initiative I fight for my dream is that I don't want to die. It is almost an instinct of living beings. But as time goes on, things become not that easy.

There are many people who care about or inspire me. Among them are my close relatives. Whenever I feel lone and helpless, it is them who give me timely help and considerable attention. If I have the ability to achieve immortal life, I would like to save their life in their lifetime as soon as possible, simply I don't want to lose them.

But I am not that smart. I hate my inability and powerless. While many great scientists harvest early fruits even when they are in campus, I make no achievements and

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even get low grade in my study. Whenever I think about this, I would feel shameful and sorry for them. I cannot live up to their expectations, even a good grade is far better than my current situation. I tried many ways to improve my study, with most of them little success. You know, I always take the highest standard in evaluating my performance, because I am destined to accomplish an unconquerable problem, a problem that is impossible. And this problem, probably a most difficult one from the beginning of history, requires me to be excellent enough, to be smart enough and even excel all other people in order to make the impossible possible. But I never reach that level, even far below ordinary people sometimes and somewhere.

Isn't it like a tragedy? A man who struggles with all his effort, even his life is under no consideration, the god, however, plays joke on him. In return to his struggle and sweat, only low grades and little achievements remain, let alone achieve something impossible and save life of his close relatives. When my maternal grandma died, it was such a shock to me that she passed away without waiting for me to make something out. Later, my grandma and grandpa passed away in succession within a month, while I never have the chance to pay them a farewell visit and see their last face! All these happened when I was restrained in the university and could not move away. I can imagine what look and emotion on my relatives' faces are at that moment. The most affecting of all is that my grandpa was still concerned with me. "Study hard, and make a contribution" was his last words left on me. I didn't know how to express my feeling as if my heart was choked.

Not a single day did I dream of my grandma and grandpa. Even shortly after waking up from those dreams, I still spoke to myself, "They are alive", a moment later, I realized, they do not exist. This experience gives me strong illusion. Whenever I thought about going home, I could not help thinking about paying visit to them; however, moments later, I remembered I never had the chance. The only close relatives I can spend with in summer and winter holidays now are my parents.

Now it is the turn of my parents. Have I got the courage and ability to save them? Is the time enough for me to make a difference within their lifetime? My family is not wealthy. My parents ran an electronic game room when I was very young, too young to understand there was ever a word named cancer. I still remembered the very afternoon when my father rode his bicycle home, with me sitting in the front, and my mother sitting behind. The glow of sunset was orange then, approximately some red, when I heard my father speaking to mom, "Tomorrow will be short, things will recover soon" I didn't know what's happening despite the fact that my mother had been in hospital recently. Years later, I finally understood my mother had had cancer before, and that afternoon turned out to be the day before the operation! Because of this accident, my father had to sell out his electronic game room – his beloved business, in order to afford the huge medical expense for my mother's recovering. We had almost emptied all our storage. My mother retired early because of her illness, the company my father worked in ran badly, and later went bankrupt.

Worse still, my father was hit by a car and hurt his dorso-lumbar at that very difficult time when both my parents were out of work. Because my father's back ached at times and also because of his aging, he could no longer take laborious job. Therefore my family's economy was really tight and my parents had been saving every cent on my study.

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Much furniture was too old-fashioned to function anymore, but they simply swallowed the inconvenience and would not change. I once heard my mother planned to take rice and pickles as her main meal. It is just because their health status sometimes worries me quite a bit that I never accept their paying me a visit here in campus even if they want to do so, for it is such a long distance away from home that the journey might be uneasy and too dangerous for them to make.

Now they become old, my father has already been white-haired; my mother is not as vigorous as photos shown in the past. Every time I think about their aging, I cannot help feeling trembled and frightening. The time left for me is short. I have to work at my full strength and abandon all entertainments I love. I fight, not for me, a single person, but for my family, for people I deeply love. It is from that moment I begin to know the true meaning of life. Life is not about a single man, but about a group of people. The courage that pushes me forward to live on is not the pursuit of immortal life of me, but the pursuit of perpetual existence of people I love. The power that boosts me to go on is not the persistence on prolonging my life, but the power of love that every people internally have. Because of love, man becomes stronger, they push forward without hesitation, they fight without being afraid, and they challenge what seems impossible. Even if they fail, they feel no regret of their undoing; they feel warm because a great many others stand behind them, they feel they have the power to challenge again even if they know they would fail another time. My life is destined to be solemn and tragic, strenuous and tedious, but with no regret. This is what my life is all about.

3. SIGNIFICANCE TO MANKIND

If god tells you that human beings would someday disappear, what would you do? Imagine that the sun inflates and is going to swallow the earth, if that day comes and people still haven't find solution to escape earth and live on other planet, then would we wait to die?

While science seems to refute our last hope, let us make it a philosophy question.

When we look at stars in the sky, some of the stars have already been exploded. Among them may be stars like our sun, which may be surrounded by planets similar to our earth. The explosion of a star is beautiful, but how about the inhabitants on that 'earth'? Have they succeeded in escape? If not, their civilization is just a meteoric in the river of time, with past unknown, and future never foreseen. Is our earth the same fate?

And one star dies away, there are new stars forming in other places of the universe. Life will be reborn in new places. So life in universe is just like a cycle, with no end and start, even if it has, nobody will know because people from different places cannot reach and get known of each other. The sense of time is felt only when changes have taken place. Time machine does not exist simply because human beings from future have never come to present. If they do have, they could only have gone to a parallel world, and this again betrays the law of karma, and would lead to chaos in that world. If time machine does exist, then the world today has just started from the beginning and that the future when time machines come into being has not come yet. That also comes to a dilemma that if time machines do exist, there will be no start and no end of time as well.

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Then here comes the problem. If we cannot demonstrate the truth of our universe and cannot explore the outside world and prolong human beings' existence, we will not demonstrate the meaning of time as well. It is true that material determines consciousness, however when all consciousness does not exist, wherever is the sense of time and universe? As we often state that causes and effects cannot be inversed, the truth of logical can never be put upside down. If there is a start, would there be an end? Should this end be a new start? I don't think the universe would be so special that not only is science notwithstanding, but the philosophy of logic as well. If god creates human beings, he will give us reasons for us to live on. If I am destined to be born, I will have the value and duty to demonstrate the truth of logic and witness the reality of science. Life will finally find its way out of the end of world (unless humans destroy themselves). The universe needs the extension of life to demonstrate its logic and reality.

OK, simply put, life is not alone, we are not alone, and I am not alone. The universe, along with our sun, our mother earth, us human, is a whole that cannot separate. The power for me to explore the infinity of time and universe, to challenge what seems impossible, lies not in the possibility of science, but in the accreditation of the philosophy of logic. To maintain human beings' existence, is not a question of courage and confidence, able and unable, but a radical question whether science is in the final analysis right or wrong, whether philosophy is fundamentally correct or not. The exploration roots in history but surpass history. Just because we, the universe and human, are one, if we die, the sense of universe does not exist. Therefore we must have the conviction that human beings won't disappear, and the 'sun' of tomorrow will certainly rise.

From this point of view, the pursuit of immortal or prolonged life is not only meaningful, but also a must. Even though it is by now scientifically impossible, we still have to make it possible on a more basic ground. Whenever we fall, feel discouraged, sense desperate, we should always remember, when aliens are too far to reach, we are the last to witness the nature of universe. If universe has no end, our Judgment Day will too never come.

So next time if someone ask me why I still think it possible to become immortal, I would answer him, impossible generates possible.

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NO SLEEP – ARE YOU KIDDING ME?

I ONCE CONTINUED WORKING ON MY LESSONS WITHOUT A NORMAL SLEEP FOR UP TO A WEEK

As I have stated before, I would sacrifice my life to achieve my dream if it deserves to. The pursuit for life is so strong that I feel I can do everything for it. It is no hard to imagine. Just think that you are going to die someday, what a terrible experience! The instinct to struggle for life forces me to challenge my extreme and try an extreme effort not just my best effort. Every time I feel tired and try to escape, my inner mind would remind me – if you don't save every second, you will never achieve it! It is just death at that time which drives me to my full strength to challenge my fate, and the power of striving for life is perhaps the greatest. Anyone would better live than die. Don't you see that the ancient kings tried every effort to become immortal and with that reason uncountable money has been wasted? Don't you see all the mystery and religion from different parts of the world all serve a same property, that the immortal gods are all admired by people despite the difference of their nations and language? As long as life exists, it would never give up the right to live.

I always believe the potential and the effect of subjective initiative can be enlarged to a very large scale, the more you input, the more you get. However the result turns to the wrong direction although I spend efforts that ordinary people cannot imagine. **I sacrifice my sleep hours to study; sometimes I even didn't get a normal sleep for almost about a week.**

Many people would quickly point out the source of my failure – if you do not keep a good sleep, how can you get enough spirits in doing your study? But my sacrifice of sleeping hours is not groundless and baseless. When I was preparing for the National College Entrance Exam during my final year in high school, I used to study this way. I only slept for two hours each day and did not take a noon snap, but still I keep very good status in the day.

Perhaps the period in my life at that time is the one I feel most energized and vitalized. But college is different. I am not as strong as before, I feel tired in the day without enough sleep, and low efficiency at night. I fell asleep in many classes and thus missed a lot of important messages. But I never realized it and simply attribute my tiredness to a lack of willpower. I always believe that with a strong willpower, everything is possible. If I am persistent enough, I will be able to withstand my tiredness and employ a great more time than other students into my study, and with more time being employed, I would certainly get a higher grades. Note that the pursuit for high grades also roots in the pursuit for life, because if I want to challenge what is impossible, I should first own enough strength that matches my destiny, and an excellent grade is just a simple demonstration. However, I was not able to finish even the simplest task, let alone making any amazing contribution! Sometimes I sigh that life is just a tragedy. Some people like me are just not smart enough, and nothing he does will change the situation. However hardship he experiences, his strength is naturally delimited and things he does will change little. I never return to my peak performance.

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THE MORE YOU PAY, THE LESS YOU GET?

MY COLLEGE EXPERIENCE IS NOT SUCCESSFUL AT ALL AND LAGS FAR BEYOND MY EXPECTATIONS. BUT BESIDES THAT I AM A FIGHTER WHO NEVER GIVES UP.

The following letter was written to my teacher on electrodynamics. After reading it, you will understand how unhelpful is the famous saying - the more you pay, the more you get.

Here is the letter:

Dear Prof Liu Wan-dong,

Hello! Excuse me. Last time I sent you a short message (SMS) that I might not pass the electrodynamics exam. Although I know it very embarrassing to address it again here, but I still want to struggle for passing the test.

In the past, I was an introvert man, who preferred learning alone. I always believed that the more I paid, the more I would gain. However, I failed to master the correct methods to study and failed to maintain a correct life custom. What was worse, I blindly did exercises and engaged all my time in solving a sea of problems on lessons, so my learning efficiency was very low. I paid a lot, but my harvest is few. Due to lack of initiative in learning, even when the exam result fell far short of my expectations, I always simply blamed it on my own lack of effort to learn. Never did I question the methods I took to study, nor did I ever think about the emergency of error correction. The result led to a higher and higher standard on my study, sometimes I took an ascetic criteria on myself, including setting up 48 alarms on my mobile a day to prevent me from falling asleep. If I really could not resist feeling sleepy, I would stand up and continue learning. (Standing up is an effective way to deprive someone from asleep) Whenever I remembered I once moved on to study **without sleeping for several days**, I would doubt whether I may catch some permanent mental damage right then.

My high school teacher told us, the time is like a sponge, there will always be water squeezed out, as long as you are willing to squeeze in, saying, you can always get more time than others if you manage your time efficiently. I had always regarded it as truth that I engaged myself totally into study, all the entertainment or leisure time when I used to read newspapers and chat were put down. But this harsh learning did not increase my efficiency, I felt sleepy all day long, as if I had lost my consciousness and had been engaged into a trance status, even the once effective standing would not work (I was so tired, even I could not maintain my standing). But I still kept that belief, that there would finally be good results as so much effort was paid. However, the gap between reality and my ideal turned out to be such an abyss that I often wondered whether my doing was in the end a huge mistake. But each time when I failed, the results of reviewing my failure made me go astray farther and farther. I still ascribed my failure to my laziness although I had set the probable hardest restrictions on my behavior.

Honestly speaking, I cannot follow the restrictions all the time, because I am a human, not a machine. Could a human being take no glimpse at all things around him that would make him curious in order to save time? Could a human really fight for several days without a normal sleep in order to get better grades? Actually no one could, but I did think

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so. I always believed that my willpower was strong enough to overcome everything. I always believed that nothing was impossible if I paid an extraordinary effort. As is known to all, it is not a reality. But as I have stated in [my personal ideal](#), it is more of a responsibility than possibility why I strive so hard in my study, even in neglect of the normal principle of study. But after all I am no superman, when I exceeded my extreme capability of study, my performance dramatically dropped down.

Perhaps the 3.7 GPA in my freshman year was not low enough to make me generate sufficient doubts on my own learning methods. I became even more aggravated on my study in my sophomore. The entire second year of my college life was the hardest, most hopeful, and yet most painful and most unsuccessful year. My electromagnetism exam failed. I still remember the night before electromagnetic midterm exam. I continued to study and didn't go to bed till 3:00 next day morning. I have endured unbearable suffering in preparation for the exam. But when the examination result came out, two of my roommates got satisfying marks of eighty or ninety, while I was nearly in the bottom of the class, score 41. Even one of my roommates, who never turned out in class, who always played day and night in dorm, gets a higher mark (57) than me. What an irony! Ridiculous, amazing, and then silent...

That night I cried, what I fought so hard for? I fight not simply in order to get a better score, but to be responsible to myself, and live up to my parents' expectations too. They have been saving every cent to further my study. Man does not easily cry. But when I thought about my own efforts so helpless, the more effort I paid, the larger failure I gained. Whenever I thought that I could not change my destiny no matter how hard I tried, I could not help feeling helpless and sorrow. The reality was so cruel, and I even began to doubt if ever the world had justice. I had always been convinced of people's initiative, I had always believed that the long dark night will eventually usher a new dawn. Fate is not predestined. However when I again and again stood up from failure, I found that I would once again fall into a deeper abyss.

I remembered that my electromagnetic teacher, Prof Cheng Fuzhen often earnestly warned us that we should cherish the opportunity to learn, study hard and pass the exam because parents was not easy to take us to school and the nation had invested a great deal to provide us comfortable environment to study. We should live up to our parents and our nation. What I did wrong that made me fail them? My family was not wealthy and would have to spend so much to send me abroad to study. And I had been living very frugally, let alone buying a computer. But I failed, I had let them down. They comforted me. I hold back my tears, for I was afraid they would be sad if I cried. But I knew I hurt them.

I decided to change from the very bases. I thought that my test failure was a result that I did not attach much importance to my homework and lacked in-depth understanding of the text books. This is right to some extent, but I still do not realize the source of my failure. Needless to say, after struggling for the next half semester, my learning was still totally a failure, and I didn't pass the electromagnetism final exam with a score of 57. (Sometimes I wonder whether they have wronged me when checking the paper, but I never get the courage to check my paper, because I know I really learned badly and I missed many problems)

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Throughout the winter, I introspected for a long time and thought a lot. Didn't I work hard enough? No, over the three consecutive semesters, I had been overloaded and reached my limits. I must have a thorough correction of my past mistakes. I had to start a new attempt. I finally found where my failure rooted. That was, I had always followed my high school learning methods instead of the normal routine. Especially, I had always believed that the number of questions done and the learning time input was directly proportional to learning effect. However, this study method was a taboo to college students.

I had been exploring for an effective method for three semesters and finally found it, but it was too late!

The biggest difference between universities and high school is the curriculum burden, there is no time to do extra exercises to consolidate what you have learned in college, and the difficulty of the examination is no less than any exercise book specifically designed. Unlike high school period, when time is sufficient, one can earn better grades by spending more time on more exercises. My teacher often told us, that the main purpose of University is to develop your ability to learn, is to teach you how to make the most effective learning in the shortest possible time. Since college students do not have enough time to make extra practice, it is an essential job to learn the first-hand information independently. You have to completely digest each lesson as soon as possible, never think that you have the chance to make it up later by doing more exercises just as in high school. If lessons are not taken seriously, while additional exercises are yet impossible, one is sure to work badly in his study.

These were previous mistakes I had made. I had never taken my homework seriously and always dreamed that I could make it up by working more on reference books. In return to my blindness effort, neither were those endless problems on my reference books finished, nor did I absorb the most useful information from my homework. As the wrong idea that doing more exercises earns better scores continued, I directly jumped to solutions to many problems on the reference books simply because I didn't get enough time to finish them all on my own. So, the carelessness in homework, the brutal treatment of reference books led to a very poor digestion in my study, the questions that I independently solved were very few. I believed that the fact that I did not digest the first-hand information in homework was my greatest failure, and too little sleep also seriously affected the correctness of my problem-solving.

Since the failing in electromagnetism, I face two choices – to take a make-up exam or to repeat the course again. I carefully consulted my head teacher, associated Prof Wan Shude, and finally decided to take a make-up exam. I still regret for my decision now, because the make-up exam results in a maxim score of 60, while I could earn a score higher than 60 if I chose to repeat the course. Therefore my GPA worsened after taking the make-up exam. The original GPA of my second year was 3.1; it decreased to 2.9 after the make-up exam (because you can only earn a passing grade no matter how well you did in the make-up exam). Even worse, my 3.7 GPA in my freshman year dramatically dropped down to 3.3 then.

Fearless Fighter: a personal story

Since the wrong studying method and lack of sleep was the source of my failure, I started from my sophomore year to solve the above problems. I began to go bed early and gradually improved my learning method. I totally abandoned the wrong idea that major focus on reference book rather than on the lessons themselves (although my bad old habits still exist for some time), I sought to completely absorb the contents of homework and contents of every class. If I still could not figure it out in some places, I would first think twice, and then refer to textbooks, assignments, or ask the teacher and other students. With all methods above been tried and still no solution was drawn, I then turn to reference books finally. **Every day I censored my own learning efficiency and learning effectiveness, and tried to correct my poor study habits and improve learning methods timely.** On the whole, I was at a more initiative stance to learn. I was proved right. I checked my score of last term several days ago. Among the courses of which scores came out, I earned a GPA of 3.9. Of course, the score of electrodynamics had not come out and so the score above was not the final.

Because of last failure of electromagnetism exam, I was well aware of the consequences of failing a test, so I had taken extra care on the electrodynamics, invested more time and energy than other disciplines. I tried to complete the homework on my own. (Although there are detail solutions to the exercises) Whenever problems were found, I tried to solve it in the first place. Prof Liu, you and several teaching assistants should remember me well, because I often asked you questions. When I was preparing for the electrodynamics exam, I reviewed all my homework and the entire book. I even had all sample questions on the text book independently re-done again. I derived most easy formulas independently, and wrote down difficult formulas from memory no less than ten times. What I need was simple, just not to repeat previous mistakes made in my electromagnetism lesson...

But just when I was gaining my momentum in my study, in front waiting for me was a new nightmare. Long enough had I not taken any exam that all the experience on exam that accumulated in high school, where exams were so frequent taken, was gone. I committed a fatal error during the electrodynamics exam (that was not the first time). I solved the problems in such a hurry in order to finish all the questions in time that no deeper thinking was taken. And I wasted too much time on problems that I was not familiar with. In a word, I committed a basic strategic error on how to distribute time to questions differed in difficulty. The result is just another tragedy. I did badly on problems that I should have done right because of my hurry. I never figure those difficult problems out even a great amount of time was employed. What was worse, I even made mistakes in writing those familiar formulas that I had been practiced every day.

I used to solve problems very carefully from the beginning to the end. However, when it multiplies a time factor, the time seemed to become relative. The quality of problem-solving differed greatly in different situations even the same amount of time was employed. Was my strength not enough? No. I found a factor that was more deadly than ability when taking an exam, the strategy. So I have to thank the electrodynamics exam, it was from then I began to realize my deficiency in exam experience. I summarized my experience after each examination, and committed no more mistakes in the following examinations on other subjects.

Fearless Fighter: a personal story

Writing to this point, I truly understand why my university study was such a failure. First, I did not keep a suitable learning method. Second, I also keep an inappropriate testing method. But we all graduated from high school, why it took me two years to finally uncover the truth, while other people quickly adapted college study? Am I stupid?

Recently in the preparation for the GRE test in New Oriental School in Beijing, I was fortunate to listen to lectures from many successful people. I finally understood the reason why I adapted to college study much slower than others. It was because that I was introverted, very unwilling to take the initiative to obtain information around. Take the electromagnetic exam as an example, the last chapter, superconductivity was actually a part in the exam, but I wrongly considered that the teacher would not put that chapter in the examination, so I hadn't reviewed the last chapter at all, which led to my failure directly. I just need 3 more points to pass the exam!

Even if I knew my reluctance to be initiative might be a problem, but seldom had I taken any firm steps to set away from my conservative thought. Should I take the initiative to think more whether this method is the most efficient when solving a problem, or be brave enough to check my exam papers of which grades lags far beyond expectations, or take the initiative to think why I make a mistake when taking the first examination, I would never have been reduced to such an awkward situation. In fact, I knew where my problem lay, but I did very conservative. Since my high school life was such a success, why could not my college life be the same when applying the same methods that were employed in high school? If the principle – the more you pay, the more you harvest – is that correct, why shouldn't I employ all my time in the study in order to get a better performance? Very funny, isn't it? I was really too passive at that time.

In fact, the learning outcome is a combination of your strength and the ability to prove your strength (such as examinations). You learn not only to accumulate your strength, but also to enhance the ability to prove your strength. Truly the same is to make your own career and market yourself in the community. To market oneself, he must have good interpersonal skills, a good interpersonal relationship, and a wide range of knowledge in order to find common grounds. So I should not only invest sufficient energy in my professional area, but also in other areas as well, and it should be not a tiny sip before putting the cup away.

Among the success of a successful person, thirty percent comes from his strength, while seventy percent comes from his interpersonal skills. Therefore, being a fully developed individual is not only an essence in the future, but also a foundation that must be laid in the current situation. I have to enhance my ability in different aspects. First of all I should be more initiative, and correct my weakness in my character. If it is a small initiative to market my own learning ability by means of examinations, then it is a much larger initiative to market myself to the society in the future. Opportunities will never fall down from the sky, but rather fall to people who have a prepared mind. I have to fully upgrade all aspects of my own ability, and take the initiative to market myself. My doing this is not only a responsibility to me, but also a responsibility to the society. Only in this way can I really ferry what I learned to the society and make a contribution.

Fearless Fighter: a personal story

Writing here, the text is going to end. I know that my talking about the failure of electrodynamics exam is very embarrassing, but I have to do so. I learned a lot during my studying in the New Oriental School. In particular, I deeply understand that strength alone is not enough; I must prove my strength to others. I need to take the initiative. If I blindly accept the reality, passively wait for the arrival of opportunities, I will never grow up, never escape the fate of my two years' failure. I initially planned to wait for another bomb of not passing the electrodynamics exam, but now I want to take the initiative and so writing here to you. Whatever the outcome, I would like to fight for even the smallest hope. So I wrote this article, talking about my setbacks, as well as my recent enlightenments. This is my first step towards initiative, and also my first step in promoting myself, Please forgive me if anywhere in the article offends you.

I would like to quote words from Liu Zong-yuan (Note: a famous writer in Tang Dynasty) to end this article: "It is from now I begin to know that all my visits in the past were no real visits, true travel is just beginning. So I write this article to memorize this moment, the date of 21st, July"

Your sincerely,
Zimeng Li

AFTER THAT, MY ELECTRODYNAMICS GOT A SCORE OF 76.

Fearless Fighter: a personal story

THE RAINBOW BEYOND...

AFTER THE ELECTRODYNAMICS EXAM, I FINALLY FOUND THE CORRECT WAY TO STUDY.

Although the road in the past is found unbearable to recall, I feel more confident and cherish the remaining time in campus more than ever. I had a good preparation for the GRE test, though the outcome is somehow disappointing. But that didn't matter. What I needed is true strength and ability. I wanted very much to prove my ability once again, with a more initiative and positive face.

Later, I fulfilled my commitment to change. I persisted on making statistical record every day, writing down my performance – good, normal or bad – and then decided what improvement can I made. Whenever I had a new thought or a new method of study, I would try it out and test it for some time. Then I would choose the most suitable one as my main solution from all the methods I had tried. Though making statistics was tiresome and time consuming, I learned a great deal about my advantages and disadvantages. Most of the important, efficient and beneficial methods of study were accumulated at that time and were deeply written in heart. For example, I found I was more efficient at night and least efficient in the afternoon. By comparing different effects in my statistics, I finally decided to take a snap at noon, which I had always regarded as being lazy. By making a detail comparison of effects among how many hours should I sleep every day, I finally determined my best performance – at least four hours a day. For the first time, I found my efforts were worth doing and not useless.

Unluckily, based on my interest in GENERAL RELATIVITY, I took on this selective course, but only earned a 67 grade. Though regretting choosing the course, I did not lose my confident. I still had a semester left to prove my ability before applying for school. I went on.

The next semester of junior year, I entered Laser Biology Lab to do something relevant with biology. That was when my research began. At the same time, I worked even harder on my lessons. The result came out, satisfying, when previous courses in that semester turn out to be on an average of 3.98 GPA. After the grade of THERMODYNAMICS AND STATISTICAL PHYSICS came out, I still keep a GPA of 3.84. However, when the grade of ADVANCED QUANTUM MECHANICS came out, I only earned 70. My GPA that semester, or the last semester before applying, is fixed on 3.68, while my overall undergraduate GPA is fixed at 3.46, a 0.16 plus compared to 3.3 when I failed in ELECTROMAGNETISM in my sophomore year.

That's the result of my fighting in the sophomore year. Though not prominent at all, I feel no regret. We cannot control accidents from happening. If you try your best and feel no regret, I think that is enough. I still have a large space remaining to develop my skill and learning ability. I would make unremitting efforts to achieve it this semester. Finally, I got a high grade of 4.04 GPA this semester and finally proved myself!

I believe, from the rainbow beyond, I would finally gain what I deserve. The more you pay, the more you gain. Though the days are dark, I still believe in a better future.

Fearless Fighter: a personal story

NEW STEP, NEW START

START FLYING, GOING ABROAD

It's now 4.16th, one day after the acceptance deadline 4.15. From my first offer from Maryland to my second offer from UNC, and then from the ones I decide to reject to go to, to the ones that decline my application, I have been overjoyed with harvest and also feeling pain being ignored. Admittedly, the whole last winter holiday and the beginning of this semester, I spent a great amount of effort in my research of complex fluid and on my thesis on advanced statistic mechanics. It's no wonder that I could earn that high grade last semester with this entire overwhelming endeavor. However, despite that I earned a more solid ground, the grade, the thesis have not added to my application, with my regrets lying at Yale, Cornell and Michigan.

But I'm still stratifying with the battle with myself. Over the four years of undergraduate study, I have been, days and nights, trying my full effort in proving myself to be among the best. There are uncountable stories, full of sorrowful stories and tragedies behind. This time, though nothing to do with application, my effort finally turns to a satisfying grade. It cannot be better to prove my ability of study, and even the fact that it does little to aid my application does not bother me either.

My decision to go to UNC-Chapel Hill is at all times determined among my existing choices; even Michigan is not that competitive. I still remember when I was for the first time interviewed by the UNC professor, I try my best to convince him that it will be 80 percent of probability that I will come to UNC. It's really an accurate calculation. Still, I have fight for so many days, to find out adequate reasons why I choose UNC but not Maryland. Actually, I have always wanted to go to Maryland, a good name to Chinese translation, sounds like 'Merry land', and with huge amounts of Chinese students studying there, let alone the extra \$5000 fellowship Maryland offers. And I did not have to fight for another year in order to be enrolled in a biophysics program, because I have been admitted to Maryland Biophysics PhD Program.

It's a hard choice for me to take the step to go to UNC, not because of how qualified education and instruments UNC offers, but because I want to study physics once more to prove my ability. I love physics at all times and also dreaming to be a master in physics. With the strength in Physics, I believe I can be in a more broad view and solid background in solving the emergent problems in Biology. I could not lose to Physics, and lose to myself. My going to UNC is in some means to challenge myself. Even by sacrificing my first year in graduate biophysics study, I would be more eager to rebuild my confidence and physics basis.

Needless to say, I want to be strong. This is what I must do. Conquer whatever difficulties, and reach the scientific throne.

Zimeng

04/16/2010 8:24 PM

Fearless Fighter: a personal story

PART 2

X PROFILE

HISTORY RECORD

A FEW SECRETS ABOUT MY OLD SELF - FROM HIGH SCHOOL TO 2ND YEAR GRADUATE

1. HIGH SCHOOL

I got a consecutive 2 years of first place in my junior high school and enjoy a consecutive of 8 times of first place in the later 2 years of senior high school. In the final simulated exam held among all high schools throughout our city, I was seeded No.2. It was not easy to maintain the first place in the grade, especially in a key local high school. I have demonstrated my ability of learning in my high school years. Many people won prize in a variety of competitions, but seldom could they stay in the first place continuously for so long time. I am not here to boast of how smart I was, but to state how firmly I had been working. When other students were consuming their time on things useless, I was catching every opportunity to enhance my performance. Many people wondered why I could stay in the first place for so long. The only answer I could give was numerous hours of hard working day and night. Though I hadn't won any obvious prize in notable competitions, I had to note here that those competitions are more of an invest of money than one's ability, especially to family like mine that could not afford high expenses on employing famous teachers for special training.

The downturn of my performance in high school happened mainly at the Entrance Examination for higher education, e.g., the Senior High Entrance Exam and the College Entrance Exam. I admit making some strategically errors in those exams, while the main cause remained as a defect of my psychological preparation. The result was somehow disappointing, because I withstood numerous tests and maintained the first place all along the way, but failed in the final Entrance Exam, while someone who used to rank beyond top 10 finally earned the seventh place in the province. I am not here to emphasize my glorious past, but to explain that things do not always follow what man thinks of. And that was only the beginning of a much greater failure in college study.

Fearless Fighter: a personal story

2. UNDERGRADUATE

It might be just because I was so successful in my high school that I was deeply convinced of the correctness of my learning method – the more you pay, the more you get. Practice makes perfect. Yes, whatever difficulty can conquer me if I practiced that hard and take every possible situation into consideration? [But I was thoroughly wrong.](#)

OVERVIEW

Major: Atoms @ Molecules of Modern Physics Department

GPA: current 3.51 on a 4.3 scale (3.51/4.3)

Senior GPA: 1st half - 3.45; 2nd half - 3.68 ; Fourth Year GPA: 1st half - **4.04**

Weighted Average: 86.96/100

TOEFL IBT: 108 with oral 23, reading 29, listening 28, writing 28

GRE General: Verbal 510 65%, Quantitative 800 94%, Analytical writing 3 10%

GRE Physics Subject: 790 71%

[Transcript in full 4 years \(Scanned copy\)](#)

Awards:

Freshman Bronze Scholarship 06-07

[School Excellence for 09 Summer Undergraduate Research Program](#)

Senior Bronze Scholarship 2009

For more delicate view, go to my [undergraduate CV](#).

THE FIRST THREE YEARS

My average GPA is not competitive at all, but I did get good grades in most of my lessons; however, I got very poor grades in four of them, which greatly discounts my GPA in average. These four lessons that drag my GPA down are:

Sophomore - 3.1 GPA in the first half

ELECTROMAGNETISM - 57 (later a make-up exam was made to pass the exam)

FUNCTION OF A COMPLEX VARIABLE - 72

Fearless Fighter: a personal story

Senior - 3.45 GPA in the first half;
GENERAL RELATIVITY – 67

Senior - 3.68 GPA in the second half
ADVANCED QUANTUM MECHANICS – 70

The exam of ELECTROMAGNETISM and FUNCTION OF A COMPLEX VARIABLE happen in the same semester. I attribute my failure of that semester to a same reason. The reason can be found in [-The more you pay, the less you get?](#)

GENERAL RELATIVITY, I seldom ascribe my failure to the teacher, but not this time. I was lucky to pass after all.

ADVANCED QUANTUM MECHANICS, the exam was so difficult that everyone could and could only finish the first question among the five questions. I doubt the teacher used a random model to decide our grades.

GRE General

The score lags far beyond my expectations. I have prepared for the GRE fairly well, and was very confident to earn an excellent grade. However, the day before the test, I had only drunk a bottle of milk. But this bottle of milk, only 250mL, made me feel going to the washroom during the test, and I dared not to as the exam was in such a tense. Therefore, the score of verbal turned out so low. What made me incomprehensible was my analytical writing – such a low grade! I used to write well-formed compositions. I planned to review the score on writing originally, but I had not got a credit card to pay for the fee then.

FOURTH YEAR

Course	Score
An Introductory Course to Atoms & Molecules Physics	100
Atoms & Molecules Experimental techniques	94
Nonlinear Physics	89
Advanced Statistic Physics	95
GPA: 4.04/4.3	

Fearless Fighter: a personal story

3. GRADUATE

Graduate study has been too good to be true, with all six core courses graded High Pass except Electromagnetism II. This is certainly a dream come true when compared with my much shadowed undergraduate study. It now turns to research, I hope my high momentum in my graduate study could extend to research, and eventually be an independent scholar following the steps of great physicists from all times. 'Standing on the shoulders of the giants'!!!

Service	Period	Specification	Advisor/Director
?	2012Fall	?	?
Research Assistant	2012Summer	Erie's Lab	Dr. Erie
Teaching Assistant		PHYS LAB 104	Dr. Deardorff
Rotation Student	2012Spring	Erie's Lab	Dr. Erie
Teaching Assistant		PHYS LAB 117	Dr. Deardorff
Rotation Student	2011Fall	Asokan's Lab & CISMM	Dr. Asokan & Dr. Falvo
Rotation Student	2011Summer	Dokholyan's Lab	Dr. Dokholyan & Dr. Shirvanyants
Teaching Assistant	2011Spring	PHYS LAB 105	Dr. Deardorff
Teaching Assistant	2010Fall	PHYS LAB 104	Dr. Deardorff

Fearless Fighter: a personal story

TRANSITION FROM PHYSICS TO BIOLOGY

AN AMAZING MOVE, BUT NOT SURPRISING

MY PHYSICS BACKGROUND

My Undergraduate major: Atoms & Molecules Physics

Curriculums of my major:

Quantum Mechanics
Advanced Quantum Mechanics
Particle Detection
Introduction to Plasma Physics
General Relativity
Thermodynamics and Statistic Physics
Computational Physics
Solid State Physics
Introduction to Modern Atoms & Molecules Physics
Experimental technology on Atoms & Molecules

Advanced Statistic Physics
Nonlinear Physics
Quantum Fields Theory
Group Theory in Physics
Many-Body Quantum Physics
Modern Mathematics Physics Methods

WHY I CHOOSE AOM?

Well, I aim to learn biology according to [my personal ideal](#). So if I would like to choose physics major, I would select field that is relevant to biology. Unfortunately, there is no specialty of biophysics in my university. My choice is restrict to these fields: Theoretical Physics, Particle Physics, Atoms & Molecule Physics, Condensed Matter Physics, Optics Physics, Plasma Physics, Electronics, and Astronomy. Because I lack much knowledge of deep content of these fields, and each specialty has a limitation on the number of students to enroll in, with better students in priority, I made my final choice of Atoms & Molecules because the title makes it seems like that it deals with properties of molecules, which is just the scale that some fields in biology aims at. Therefore comes the fact that I am an Atoms & Molecules Major.

Some people would question me why I make things so inconvenient and not to choose physics instead of biology initially. Everyone can understand my keen favor of biology in my personal statement. However, I was some kind of introverted and had no definite view on my own then, so I followed some kind of hobby and popularity at that time. I love physics, as you can also see in my statement. However, whatever my interests lay, my life is destined to biology research. One of the reason I miss my choice on biology is that I

Fearless Fighter: a personal story

have an instinct nausea on bloody organism. But that should not be a reason as long as I get acquainted with the uneasiness. I still regret my choice at that time. But now things are different. I am grown up and much more definite than before on my pursuit. And never would I give up a single chance to catch the opportunity to do biological research. That's the call of my fate.

WHY CHANGE TO BIOPHYSICS

I have stated in my personal ideal that I would try every effort to pursue my dream in biology. Choosing Atoms & Molecule is just the first step towards biology. I originally think that it deals with molecules, which might be helpful in biological research. However, the courses I have studied in my major all seem like topics from other fields. For example, GENERAL RELATIVITY is just an astronomy course. PARTICLE DETECTION is a technological class from particle physics. And Quantum Physics is placed in a very important role in my major courses. If all additional courses were counted, I would have to learn four courses that are closely relevant to quantum, saying, QUANTUM MECHANICS, ADVANCED QUANTUM MECHANICS, QUANTUM FIELD THEORY (ALSO RELEVANT TO RELATIVITY), AND MANY-BODY QUANTUM PHYSICS. What's more, my courses also completely contain lessons which are required by theoretical specialty. Such as Group Theory, Modern Mathematics Physics Methods, Advanced Statistics Physics and Nonlinear Physics. So Atoms & Molecules seems rather a dull theoretical major and its applications on biology seem unobvious, and it is also for this reason, I skip some of the courses.

Actually, Atoms & Molecules is not at all irrelevant to biological applications. For example, spectrum analysis is widely used in obtaining information of material properties. People can acquire the knowledge of the components of a biological body through spectroscopy. X-ray analysis, can detect inner part of patients' body without doing any outer harms, it can also easily interpreted a biological structure of tissues and organs. STM, which is used widely to obtain 3D picture of micro beings, has a surprising range that it can even get a close look at atoms and molecules, let alone those 'huge' cells and cell organs.

Other physics fields also have their applications in biology. Theoretical Physics, for example, emphasizes more on their mathematical skill. And these mathematics skills are beneficial to do research in biostatistics or bioinformatics and make mathematics models to explore how genes regulate bodies. Optics, for example, is even more closely relevant. Microscopy, laser technology, and optical tweezers... Especially laser technology, the method of laser ablation led to microsurgery on human's body parts like skin patch and eyeball.

Therefore, each field on physics has some relevance with biology. Though there is no specific biophysics major in my university, I manage to find a laboratory - Laser Biology Lab - where intersection area between biology and physics is researched. It is not an A&M lab but rather an optics lab. Nevertheless, I join in the lab in regardless of my original major, just because I have a deep intention to do research on biology. ([See my personal ideal](#))

WHY STUDY ABROAD

Fearless Fighter: a personal story

Firstly, I aim to contribute all my life to the glorious research of life science. Life science abroad is much more advanced than here at home. Most importantly, my destiny allows me no time to waste on issues that prevent me from stepping forward. Every second counts. I have to catch every opportunity to quicken the process towards my dream (though it is impossible). And going abroad to catch the most advanced science and technology is just the very important thing to do.

IS IT POSSIBLE FOR THE TRANSITION

I have a conversation with Doctor Wei Yuli from Carnegie Mellon University through Email. She offers me some useful advices.

My original letter: Questions on Specialty

Dear Wei Yuli,

I am Li Zimeng "李孜萌" from Guilin and USTC, my father has guided me to contact you for information about application of US graduate school. It is my great honor to acquire something beneficial from you about my future study.

I'm physics major. But my keen interest is in Biology. It is really problematic why I choose to study physics at my undergraduate, and I would prefer not to talk about the reason here. It seems the most available way for me is to apply for a biophysics major. It is not physics, of course, but it is relevant. My specialty now is atomic and molecule physics, which I was informed to be an intersection subject. I choose [A@M](#) simply because it is an intersection subject and may be useful for my future biology research, no other reason. Even though, physics and biology are still two subjects vastly separated. I had always regretted my decision on staying on physics in the early periods. But physics major to apply for biology major, is the reality.

Why biology, not apply for my initial major?

I want to apply for a biophysics major **initially because physics major can apply for a biophysics major, according to information on the web, although not all schools provide such chances.**

The second is that it is relevant to physics. It uses physics methods to research biology phenomenon. So what I learned on physics does have something to do with biophysics major.

And my major now, [A@M](#), mainly uses X ray or electron spectrum to detect material structure will help to detect molecule structure such as DNA's.

I also joined an optical lab, naming laser biology lab, which deals with bio-x directions. (X in 'bio-x' means intersection between biology and other science). I doing some research on algae cell lately.

Fearless Fighter: a personal story

Moreover, nuclear science is not at all irrelevant to biology. Y-ray photography is one example.

Most importantly, I am determined to study biology, even when I was very young, and will not change my mind in the future.

Therefore, the worst plan for me is to apply an [A@M](#) major first, and then find chances to shift to biology in the future. But I expect a better solution--apply for a biology major directly.

Why biophysics? Not other biology major?

Much more simply, because I'm physics major, and biophysics is relevant to physics, the application will be easier than applying for other biology major such as molecule biology. What direction am I interest in biology? It is hard to tell, for knowledge is so limited. I would prefer to deal with DNA, but biophysics may not deal with DNA. **But with no biology background, it is no easy to apply for other biology major. With only physics background, the most likely way for me lies in biophysics.**

My Problems

Can physics major apply for a biophysics major, without biology GRE sub but rather a physics GRE sub? Note I haven't studied any undergraduate biology courses, so biology GRE sub is unlikely.

What schools are available with biophysics major? Which do you recommend?

Do I have the need to apply for two majors at the same time? I mean, I apply for [A@M](#) major in some schools and biophysics major in some schools at the same time. Of course, applying for an [A@M](#) major is my worst plan. Note that I had already set my four free GRE general score recipients to be [A@M](#) graduate schools in early periods when taking the GRE general test.

To conclude

Apply [A@M](#) major is of course easier than to apply for a biophysics major. But as I would finally shift to biology, why I would not apply for it now? Whoever prefers to burry his age on things he doesn't like to do? And I had already waste my four years on that. I would not make the same mistake again.

There is a doc linked with the email. I'm informed that you cannot view Chinese characters correctly. As there are some Chinese characters in this email, you can view the doc instead.

Thank you for the direction!

With regards,

Li Zimeng, 4.15

Fearless Fighter: a personal story

Here is the reply:

Hi,Zimeng

Below are my suggestion:

1. Can a physics major apply for a biophysics major, without biology GRE sub but rather a physics GRE sub? Note I haven't studied any undergraduate biology courses, so biology GRE sub is unlikely.

Sure, biophysics is just a sub-major of physics. Just send your applications to Physics department, they will consider you as a general physics major candidate and give you a TA for the first year. You can choose your adviser and research area after passing the qualified exams.

2. What schools are available with biophysics major? Which do you recommend?

Go to website of each university => Physics Department => research areas => professors working in bio-physics/condensed Matter/particle physics

Pick up the ones you are interested in, read their webpage and publications. Write email to them to see whether they have RA openings.

3. Do I have the need to apply for two majors at the same time? I mean, I apply for [A@M](#) major in some schools and biophysics major in some schools at the same time. Of course, applying for an [A@M](#) major is my worst plan. Note that I had already set my four free GRE general score recipients to be [A@M](#) graduate schools in early periods when taking the GRE general test.

You can do that but I don't recommend it. It is almost impossible for a university to give you two offers at the same time. As far as I know, Physics Department may allow their students working for professors in other departments.

BTW, Bio-Physics is a good choice now because it is one of a few research areas in Physics that have enough funding.

Best,
Yuli

Fearless Fighter: a personal story

HOBBY

WHILE I KEEP A VARIETY OF INTEREST IN MANY AREAS, MY PERSONAL IDEAL PLACES RESTRICTIONS ON THINGS I CAN REALLY ENJOY WITH EFFICIENCY, SAYING, ALL MY HOBBIES SERVE MY PERSONAL IDEAL ON SOME EXTEND.

1. LISTEN TO VOICE OF AMERICA

I have always wanted to go to America to further my study. ([See Why I want to go abroad?](#)) And the very first thing to do is to get acquainted of the English language. Listen, read, and speak is without doubt good ways to learn a foreign language, and among them listen is relatively easier and more efficient ways. VOA is an English media most widely known in China, and it is easy to download VOA broadcasts from websites. I exercise to listen to VOA Standard English every day, not in my working time, but in those periods of time when work uses mainly physical power. Thus my mental power and physical power is fully employed without being idle. I usually compare my brain to CPU of a computer. While computer has its terminology of CPU usage, human also have brain usage. That means doing two things (require little thinking) at the same time is possible.

So I take my MP4 and put on my earphone whenever I have the chance to listen. Listen to VOA also saves me time to watch TV and read newspaper to acquire news important around the world every day. Needless to say, listen is a more efficient way than watch and read, which will fix you in a point and make you unable to deal with other things. The moment I am running, riding to school cafeteria or going to the washroom, is also the time when I enjoy a variety of information through VOA English. Of course, I specially take care of news from biology and medicine besides social and political events. One thing to note from what I have heard is that stem cell research is really the hottest scientific topic in VOA English.

2. RUNNING

Why I choose to run rather than other kind of sports? Note the 'running' here does not mean competition, but rather free running in the morning, or jog. I do not like to take part in competitive sports, though I like to watch them. One of my teacher, Xuan Shigui, goes even further, he does not like Olympic Games, he says that Olympic Games is more a sports meet that devastate human's body than challenger human's extreme. His idea of true sports is to exercise human's body and make one healthier and stronger both mentally and physically. I partly agree with his points because competition usually makes oneself extremely tired and even exceed one's extreme and possibility. And for ordinary people to strengthen their body, the better way is to exercise themselves on their own will rather than by force and compulsory commitment. So I do morning running every day to keep my body strong. I run each time for 15 minutes, and try to enhance my speed as time goes on. Our campus is not large, so several rounds in the playground or one round through the campus is simply the task. That's more than 3000 meters per running. If it is holiday, I tend to run more. **Once I separate my running to third times a day, which counts for about 10 kilometers!**

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Exercising is not the only purpose of running. I run for another very important reason- to strengthen my willpower and regulate myself. There is a famous saying in materialism, that is - matters determine thoughts. Although movies always emphasize the importance of certain heroes, or takes regard of their willpower as the main source of their success. But that is far beyond the truth. Chairman Mao of Chinese Communist Party once warned party members to be alert of 'bullets' such as sugar, clothes because these luxury goods will keep your mind from being consciousness. Law has to be established to force people to keep away from over abusing their power and rights. If we take our right as part of our thinking, then law is just a physical tool to regulate our thinking, and history has demonstrated that law is in many conditions more effective than moral in educating and regulating people's mind and actions. Similarly, I am also an ordinary man. I can keep my willpower for several days, or even a month, but I cannot persist for a year, and even my lifetime.

Note the willpower I mean here is not just a simple mind or common thinking, such as achieving one's dream without giving up, but rather the uppermost willpower human being can face. For instance, given a chance, you are able to choose to die and let all other people live forever, or you choose to live forever but make a huge number of people die, what would you choose? That's not a good question. OK, turn to an easier one, if you want to fight for something which will engage your whole life time and would dispel a great part of your life's enjoyment, and you know you will never fulfill it because the task itself is impossible, would you still consider it desirable? If you still do, then the willpower that keeps you working for that dream must be strong enough, even enough to challenge your life. On other words, you have to embody the courage to die whenever needed to achieve it. And this willpower is the uppermost one that reaches to human's extreme and seldom can anyone persist.

Sometimes I think human beings are humble animals that cannot maximize his ability and efficiency to do something. Firstly, people have senses and feelings, and unforgettable memories, which will distract them from focusing on some specific work for a long time or simply concentrate themselves. I still remember when I took the National College Entrance Exam. I was so nervous that I fall in urgent micturition, although I read myself in heart a thousand times not to be nervous. That greatly discounts my performance. Second, satirically, people are also easy to forget. Yes, I learn a great deal, but hardly can I remember most of them accurately. I have to turn to books for help, which always takes me a long time.

Can anyone tell this kind of memory is efficient enough to undertake a real solid work? I don't think so. Maybe, it is a nature shortage for all living beings. If one is biological, he can never remember things forever. That is why I think machines are sometimes more efficient than humans. However, whoever wants to be an emotionless machine rather than a colorful common man? Because people have feelings and thoughts, they become strong and learn from failure, become persistent and stand up after fall, become united and cumulate their power from bits and pieces. I think the issue, in what way can we become most efficient, is hard to conclude. Not a single time have I flashed the idea to make a powerful machine to substitute people to learn and to research! Think about the perpetuate memory

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of a machine and 24 hours working without interruption, whose efficiency can ever match it? I don't regard it as totally impossible.

That is a bit far from our main topic. OK, how can we obtain the uppermost willpower I mentioned ahead? The only way is to become unafraid of death when trying to archive your ideal. Note that the consciousness of death is always a mental cognition. If you are really unafraid of death, you can also obtain the uppermost willpower. As far as I know, there are two ways. One is to own a religious believe. I mean not the terrorist here, but those who serve the people. Mahatma Gandhi, a legend from India, is just one example. I admire his willpower. That is the hardest I have ever seen. The other is by using physical restriction, or law. The 'law' here is personal restriction. Running is an example of such a physical 'law'. As I mentioned ahead, usually ordinary people cannot keep their uppermost willpower for a long time, or humans are humble animals that will easily forget who they are when placed into a comfortable situation. But what about place a 'law' on ourselves?

I have to address an issue here that hasn't being stated before, is that although people frequently forget who they are, they will finally find their conscience some time later. They feel regretful for their wrong doing, and are willing to do something to compensate. And this is the moment to execute our 'law' cause we have the courage after a fully conscious cognition. So I run whenever I make a wrong doing. And running for 3000 meters in a provided short time is no easy job. The pain paid to running is just like a cut in your body, a real challenge of life. Just as I quoted ahead that matters determine cognition, it is the same here that physical labor, or 'law', running, determines my minds. After such a run, I would always burry in mind that I would not make the same mistake again. Should it happen, there would come another run.

Actually, the uppermost willpower to achieve my goal is far easier than running. Why? My dream is to prolong human's life, the willpower to achieve it is to work at my full strength and save as much time as possible to be engaged into it, therefore the only difficulty is how to cut my time on entertainment and maximize my efficiency, or manage to explore more time on my work. So I have to regulate my lust and resist any temptation. That is really a very difficult and also relatively easy work. It is very difficult, nearly impossible, because you cannot maintain such self-control for your whole life. But it is also relatively easy, because it is possible for you to maintain such willpower for a few days. Therefore, an interesting thing happens. Given you a choice, choose to maintain ascetic lifelong or run lifelong, I think you would choose the first one. To make it easier, choose to maintain self-control for a few days or run for a few days, I think you will also remain the same choice.

So what does it tell us? Uppermost willpower is not at all unconquerable; it depends on how you take regard of it. I remember a story about a big clock and a small clock. The big one says its second hand has already gone numerous rounds. The small clock is uneasy at how it is possible for him to go so many rounds. But the big one makes the problem clear: just moves your hand per second. That's all things going around. The so-called uppermost willpower here is the same story. But after all, human beings are different, you have to place a physical 'law', or running, to keep your momentum, otherwise you cannot achieve the impossible. On my condition, physical training is not all about exercising, it is also an essential tool to regulate my mind and push me forward without hesitation and even a stop.

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Anyhow, don't mistake me as a bloodless workaholic. I love playing. But like physical training, these entertainments also serve my ideal, not totally relaxation in a pure sense.

3. BODY BUILDING

I am not a fan to build my body, or I practice body building not because it can adjust my body to a certain kind of shape, although as an additional result my muscle is strengthened and muscle brick is shaped. I practice body building because it is an express way to exercise oneself. It activates one's full strength in a short time and it does not require very complicated facilities. So I can practice it just in dorm. Dumbbells and chest expanders can be easily put in dorm without occupying much space. A push-up, a sit-up and a pull-up are also easily done within the dorm. Therefore, if it is a rainy day, or if it is in the evening when running is not appropriate, I practice body building instead. It is really a fast and efficient exercise. Not only my endurance is enhanced, but also it is time saving and get me fit enough so I can handle heavy physical job at ease. And a fit body also contributes to my agility not only physically but also mentally. I am less likely to feel sleepy, and I sense superabundant of energy all the time.

I separate my daytime to four parts when doing body building - When getting up, before noon, before supper, before going to bed - each at a fixed burden of 200 push-ups and 50 sit-ups. Dumbbells and chest expanders are practiced alternatively in replace of x-ups. **Therefore, each day can counts for 800 push-ups and 200 sit-ups.**

4. WATCHING CARTOON

I admit cartoons are widely criticized as waste of time. But with a strong self-control, watching cartoon can be efficient. Watching cartoon is really a condensed enjoyment within a short period of time, so enjoyable and exciting that few people can resist its temptation but continue to watch it volume after volume. That is really a great loss. However, if one can control himself and watch one volume each time (that is 20min each), then the effect is totally different. Playing sport games and computer games all seems time consuming when compared with watching cartoons in the above way. Reading or surfing the Internet is not as enjoyable as watching cartoon in the same length of time. And cartoon series usually give you a much wider story. What's more, a good cartoon has the property to shape young people's dreams and minds.

5. ART AND LITERATURE

Our school only requires us to take at least 8 credits on selective courses, but I managed to spare some of my time and finished 19 credits on selective courses. Because I think selective courses, especially those on art and literature, have specific value in modeling a person's mind and broadening his vision. Though it is sometimes time consuming, I still think it worthy to do. Art can give us fresh ideas and ways of thinking very different from science, which is sometimes very helpful and essential to a scientific

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discovery. I think it a must for people who pursue in science to absorb creative ideas from literature and art. Many great scientists are also excellent artists.

Selective courses I have taken:

Civilization of Characters	A+
The history of science in China	A+
An Introductory course to Chinese masterpieces	A-
Open experiment	A-
Chinese classical literature	A
Chinese classical poems	A-
History of ancient times in China	A
Chinese Art	A+
Modern civilization	A

Average: 92.76 GPA: 4.02 Credit: 19

Though they are selective courses, I never ignore their importance and have attended all the classes and finished the final essay with great care. As you can see above, I got excellent grades in most of them. Another reason for my success in these courses lies in my advantage in writing and expression. Selective courses I have listened to but not taken:

Principle of Nobel Economy
The history of western civilization
Psychology for college students

6. SPRING JUMPING

Spring Jumping is simply the best alternative to running when weather condition is tough. My best record is ~650 jumps without any trap on feet. I have a skill of jumping while running. This is the ultimate form of sport I could think of to exercise your arms and legs simultaneously and continuously.

Although I don't play basketball, I do like watching super stars playing great NBA games.

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TIME MANAGEMENT

I GRASP AT EVERY MINUTE OF TIME IN ALMOST ALL SITUATIONS, HOW DO I MANAGE TO DO IT?

I love one saying from the song WINNERS (Adapted from CYBER FORMULA -GRAND GPX) – **Speed is the magic that gives us direction**

1. Listen to VOA News – learning English and learning events around the world

Occasions:

a. Toilet- saves 20 minutes

Advantage: Doctors tell us that it is harmful to read books or eat when in toilet. But listening is not harmful at all.

b. Taking a bus, waiting the queue in the school canteen, walking, running, almost on any occasion when you are not focusing!

2. Battery Low? Speaking English in my heart

When my mp4 is running short of electricity, I would do another thing – speaking English. If there are people around, I would soliloquize, speaking out what I am thinking about. If there are people around, I would speak English in my heart. Usually, I would try to recall as many English words as possible in my own dialogue. I think this is a fast way to practice one's spoken English in a non-English spoken country.

3. Walking? Too slow!

If I haven't had meal, I tend to run instead of walk when transferring from one place to the other. That saves time and also exercises myself. If it is a long distance, I would ride my bike at a relative high speed when traffic is not busy.

4. Improved efficiency saves time

One famous word from our predecessor of revolution, Li Dazhao, says – **When studying, study hard without thinking about playing. When playing, play hard without thinking about study.**

I have practiced many ways how to effectively combine studying and playing. And I find the above saying is the most effective. So, I will try my best to obtain the first place in many occasions. When attending classes, I would turn out in the first row, which will absorb my utmost concentration. When attending a seminar, I would deliver my speech first, and then I would have enough spirit and mind to listen to others' reports. **Being the first is not at all bad because it gives you much more opportunity, although it is sometimes painful.**

5. Speed up your movement!

I walk very quickly, even fast than a slow running. That saves time. The same principle, if I tend to do something, I will try to finish it faster. But the disadvantage of acting

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fast is obvious. If you are too quick, you will not be able to think carefully and mistakes will easily be made. But you can conquer this disadvantage by concentrating your mind. So, even the simplest thing I do is not without effort. I will always keep my mind in doing something – How can I finish it most efficiently? So my life is sometimes tiring, but I am happy with it. Even the most crucial punishment, running, I would run at a high speed to strengthen the load and also save that 1 or 2 minutes.

6. Stop watch

I keep a stop watch with me all the day. Whenever I do a task, I would use the stop watch to count how long it cost to finish the task. I would firstly estimate the time needed, and then use my full power, either my mental power or my physical power, to finish the task. Later, I would compare the time actually used and the one initially estimated. If I finish the task within the time I estimated, I would praise me. Otherwise, I would introspect why I haven't finished it in time, and try to find a solution.

For example, when I do my homework, I would count the time and imagine that I am taking an exam. I estimate that the time for the question is 15 minutes. If I surpass the time and the problem is still not solved, I would stop and make an evaluation.

7. **My time resolution is 1 sec.**

My time record is 1 min. All my work is calculated in seconds rather than hours.

THERE'S CERTAINLY A LOT MORE...

In a word, my principle is, the faster, the better, provided that the quality is guaranteed. If you ask how I can think out so many ways to save time, I would answer – it is because –

MY DESTINY IS FAR FROM BEING COMPLETED. THERE IS LITTLE TIME TO LOSE. IF I WANT TO ACHIEVE MY DREAM, EVEN A SECOND IS LONG ENOUGH. EVEN A SECOND IS MEANINGFUL TO A MAN TOWARD DEATH!



APPENDIX

Here is the original letter (in Chinese) that was written to my teacher on electrodynamics.

刘万东老师，您好！打扰您了。

上次我发了一条说我电动力学可能不及格的短信，虽然我知道很尴尬，但还得争取一下。

我性格内向，学习上总是独干，一直以为有多少付出，就会有多少收获，然而由于没有掌握正确的学习方法和学习生活规律，盲目做题，搞题海战术，整天起早贪黑，学习效率很低，付出的很多，收获的却很少。由于学习上缺乏主动性，即使当看到成绩与预期相差甚远时，也简单地把它归咎于自己学习不够努力，从来不去质疑学习方法的问题，也不去想是否可能改错。结果是学习上对自己越来越苛刻，一直以苦行僧的标准去审视自己。包括一天设 48 个闹钟防止自己学习过程中入睡（睡眠不足的结果），实在困得不行了就站着学习，而一站就是一个小时。每当想起当时一连几天不睡觉就令我感动，我甚至现在还怀疑当时是否对我的智力造成了永久性的损伤。我高中老师说过，时间像海绵一样，是挤出来的，只要你肯挤，你总能获得比别人更多的时间。我一直视之为至理，所以我投入学习极其专入，把娱乐活动甚至休闲看报聊天的时间都省了下来。但这种苛刻的学习并没有提高我的效率，我整天梦若游丝，精神恍惚，站着也会倒。但我依然保持这个信念，相信总有月圆花开的一天。然而现实与理想差距是如此之大，我时常怀疑自己这样做是否正确，但每次思考的结果，却使我偏离正道越来越远。

也许大一 3.7 的 GPA 还不足以使我对自己的学习方法产生足够的怀疑。大二上我更加变本加厉，整个大二是我一生中最刻苦，最充满期望，也是最痛苦，最失败的一个学期。我电磁学考试失败了。我仍然记得电磁学期中考前天晚上我复习到深夜 3 点，我忍着常人难以忍受的痛苦去复习，但当考试结果出来后，同寝室的两个同学拿到了满意的八九十分，而我却成了班上的倒数，41 分。最令人伤心的是，同寝室另一个平时从不上课，白天晚上天天泡网吧的同学都考了 57 分。这真是绝大的讽刺。滑稽，可笑，无语...

那天晚上我哭了，我那么努力学习究竟是为了什么？还不是为了拿一个更好的分数，是对自己的负责，也是对父母的回报。男儿有泪不轻弹，但我一想到自己的努力竟是如此无助，我付出的越多，却换来更大的失败，一想到我无论怎么努力也无法改变自己的命运时，我就悲从中来。现实竟是如此的残酷，我甚至开始怀疑这个世界。我从来都是对人的主观能动性深信不疑的，我始终相信漫长的黑夜将迎来崭新的黎明，命运不是命中注定的。而当我一次又一次从失败中站起来时，我却发现我一次又一次地跌入更深的深渊。

每当想起电磁学程福臻老师谆谆告诫我们，父母送我们上学不容易，我们应珍惜学习机会，努力学习，通过考试。下对得起父母，上对得起国家。我何尝做了对不起他们的事呢？我的家庭不算富裕，将来准备出国还得很大花费。所以我一直省吃俭用，电脑什么的也没买。但我失败了，我对不起他们。他们安慰我，我强忍住不哭，我怕他们伤心，但我知道我还是令他们伤心的。

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我决定痛痛的改，我认为对作业的敷衍了事和对书本没有深入理解是我考试失败的原因。这诚然是对的，但我仍然没有意识到失败的根结所在。结果呢，在苦苦挣扎了半个学期后，学习还是全面失败，电磁学则不及格。

整个寒假，我想了很久，想了很多。是我不够努力吗？不是，连续三个学期，我不断给自己加码，我已经到极限了。我必须彻底纠正以前的错误思路。我必须开始新的尝试。我终于发现失败的根结所在，那就是我一直沿用高中的学习方法，以及不正常的作息规律。具体而言，就是我一直认为做题的数量和投入学习与学习效果是成正比的。然而，这在大学却是学习的大忌。然而这个原因我探索了三个学期，终于找到了，但也太晚了！大学与高中最大的区别，就是课程多如牛毛，根本没有时间去做多余练习巩固，而且考试的难度绝不小于任何一本教参。不像高中，时间如此充足，完全可以通过花更多时间，做更多练习，以达到无所不能的境界。老师说过，大学主要培养你学习的能力，教你怎么学习，如何在最短的时间内最有效地学习。既然大学里没有时间去做额外的练习，那作业就是你第一手资料，必须认真独立完成，你每次课都必须完全消化，不能像高中一样幻想课后可以做额外的练习弥补，课堂上消化不了不要紧，在大学，你会发现，你没有足够的时间去做更多的练习，如果作业不认真对待，每次课不认真听，同时又没有完成足够的额外练习，那你就学不好。这就是我以前所犯的错，我一直不认真对待作业，幻想可以通过做教参弥补，结果是时间不足，教参做不完，作业这最宝贵的资料也没认真完成。由于延续着做题越多考得越好的歪曲理念，但时间不够，所以教参上很多题都直接看，不独立完成。所以，对作业的漠视，对教参的粗暴对待，导致最终自己真正消化，真正独立完成的题少之又少。可以说对作业这第一手资料完全没有消化，是我最大的失败。而且我认为过少的睡眠也严重影响了解题正确性。

电磁学既然挂了，我面临补考和重修的选择，我详细咨询过班主任万树德老师，最终选择了补考。虽然我现在还一直后悔这个决定，因为补考成绩最多 60 分，相当于多考了一门 60 分的学科，结果是补考后 GPA 反而下降，原来大二上 3.1 的 GPA，补考后下降到 2.9，总 GPA 更是由大一的 3.7 降到 3.3。

既然学习方法和睡眠是我学习失败的根结，大二下一开始就解决睡眠问题，早上床睡觉，并逐步改进学习方法。现在已完全抛弃以教参为主的方法（尽管开学初期还有些念念不忘），争取完全消化作业和每次上课内容。若是有些地方不会，首先是多想想，然后参考课本，作业，或问老师同学。最后才是教参。我每天都审视自己的学习效率和学习效果，及时改正不良的学习习惯和改进学习方法，并以一个更加主动的姿态去学习。而事实也证明我的学习方法是正确的，刚长查了一下成绩，上学期 gpa3.9，当然电动力学还没出。

由于有电磁学的前车之鉴，我深知不及格的后果，所以我对电动力学格外小心，投入了比其他科更大的时间和精力。平时作业尽量独立完成，（尽管有答案书），对书上看不懂的地方争取在第一时间解决。老师和几个助教对我印象应该都不浅，因为我是经常去问问题的。复习时我更是把所有作业和书上例题又独立重新做了一遍，容易的公式都独立推导过，对要考的公式默写了一遍又一遍。我的要求不高，只要不重蹈电磁学覆辙...

然而正当我学有所成，满怀信心的去参加考试时，却发现等待在我面前的是新的噩梦。也许是太久没考试了，高中的应试经验忘得一干二净。电动力学考试时犯了致命错误（已不

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是一次了),为赶时间而匆忙解题,会做的题做得十分匆忙,根本没有深入思考,把绝大部分时间都放在不会做的题身上。结果该做对的没做对,做不出的做到最后也没做出,平时很熟的公式也弄错,总之很惨。平时做题都是仔细审题,深入思考的。但一加上一个时间因子,就好像有了一个同时的相对性,在一定时间内本来做得出的题反而做不出了。这次考试失败了,是我实力不够吗?不是。我发现了一个比自己实力不足更致命的因素,那就是我不会考试。因此我得感谢电动力学这次考试,正是它使我意识到我考场经验的缺陷,我在之后的考试中逐步总结考试经验,再也没有犯考电动力学时的致命错误。

直到此时,我才真正明白自己大学学习为什么那么失败,一是不正确的学习方法,二是不恰当的考试方法。而为什么同样是从高中进来,我探索了两年才探索出来,别人为什么就那么快的适应了呢?是我笨吗?在新东方学习的这段时间,听了许多成功人士的讲座,我越来越深刻的了解到,我之所以在学习方式的转变上如此迟钝,那就是因为我性格内向,非常不主动,即使知道可能有问题,也缺乏与旧思想决断的实际行动。如果我在学习时主动想一想,这样是否最有效率,在看到成绩与预期相差甚远时主动想想,是否改错,在第一次考试时主动想想,为什么做错,大概就不会沦落到今天这个地步。其实我也不是没想到,但我确实很保守,既然高中学习是成功的,那么大学也可以这样学;既然付出越多,收获越多,那我就把所有时间用于学习。很可笑是吧,我实在太被动了。其实,学习成果是实力和证明你实力的能力(如考试)的综合体现。你不仅要积累你的学习实力,更要提升证明你实力的能力。在社会上也是一样,开创一番事业是一个推销自己的过程。要想在社会上推销自己,除了自身的实力外,还要知道如何推销自己。要推销自己,就要有良好的人际关系,要有良好的人际关系,就要有广泛的知识面以寻找共同的兴趣点。所以我不仅要在专业知识上投入足够的精力,也要在其他各方面有所涉猎,决非浅尝则止而已。一个成功的人,三分来自他的实力,七分则来自他的人际关系。所以,做一个全面发展的人,不仅是将来的必须,更是现在应该打好的基石。而要全面提升自己各方面的能力,首先我得更加主动,改变自己的性格弱势。如果说考试是在推销自己的学习实力,是一种小的主动,那么今后推销自己的工作实力,则是一种更大的主动。机遇永远不会从天上掉下来,而是给有准备头脑的人。我一定要全面提升自己各方面的实力,主动出击,推销自己。给自己一份答卷,也给社会一份答卷。把自己的实力真正摆渡到社会的彼岸。

写到这里,全文也该划一个句号了。我知道谈论我电动力学的失败十分尴尬,但我必须得这样做。在新东方学习的这段时间里,我学到了很多。我尤其深刻的了解到光有实力是不够的,我必须向别人证明我的实力。我需要主动出击。如果一味被动地接受现实,坐等机遇的到来的话,那我将永远没有成长,永远逃脱不了我这两年的失败命运。我原本准备再一次接受现实(电动力学考试失败)的轰炸,但现在我明白了与其坐以待毙不如主动争取。无论结果如何,我也要争取哪怕是很小的一点希望。所以我写下此文,谈谈我为学的挫折,以及最近的感悟。作为我学习主动的第一步,也作为我推销自己的第一步,其中如有冒犯,还请原谅。

仿照柳宗元的一句话以结束全文:然后知吾之向之未始学,学于是乎始,故为之文以志,是日七月二一也。

李孜萌